## COLUMNAR SECTIONS

2	SERIES.	FORMATION NAME.	Symbol.	Columnar Section.	THICKNESS IN FEET.	CHARACTER OF ROCKS.
	PLIOCENE ?	Howson andesite.	Th	SEQUENCE BROKEN	250	Porphyritic hornblende-andesite lava, mostly light gray, some pink.
		Keechelus andesitic series.	Tkc		4000	Lava, tuff-breecia. and tuff; the pyroclastics considerably more abundant than the lavas. Chiefly pyroxene-andesite, but including considerable dacite and some rhyolite and basalt. Much altered and indurated in the northwest by Snoqualmie granodiorite.
	MIOCENE					
Y Y		Guye formation.	Tg	SEQUENCE BROKEN	3500±	Shales, sandstones, grits, and conglomerates, with a little limestone and chert, and contemporaneous flows of basalt and rhyolite. Altered and indurated by Snoqualmie granodiorite.
		Roslyn formation.	Trl		3000±	Massive yellow sandstone, with clay and bony shale. Roslyn coal and other less valuable beds in upper portion of formation.
	EOCENE	Teanaway basalt.	Ttb		4000	Lava flows, with interbedded tuffs. Lava, black and dark gray, compact or vesicular, sometimes weathering brown or red. Some interbedded sandstone in western portion. A little basic andesite and rhyolite occur locally.
		Kachess rhyolite.	Tk		0-2000	Rhyolite, white to pinkish and greenish, with small phenocrysts of feldspar. Mostly laminated lava and little tuff. Thin andesite near the top.
		Swauk formation.	Ts		200-5000	Well-stratified conglomerate, arkose, quartzose sand- stones, and shale, light and dark gray in color. In eastern part of area, sandstone more purely quartzose, and white and yellow in color. Cut by numerous dikes of diabase. Some tuffaceous beds at the top near Clealum Lake.
		UNCONFORMITY				

SYSTEM.	SERIES.	FORMATION NAME.	Symbol.	Columnar Section.	THICKNESS IN FEET.	CHARACTER OF ROCKS.
		Ellensburg formation.	Teb	00.000	200	Conglomerate; pebbles mostly andesite, with some of pumice, in a soft tuffaceous matrix.
	CENE	Keechelus andesitic series.	Tkc		0-3000±	Mostly pyroxene-andesite, with some basalt and rhy olite lavas, tuffs, and breccias. The pyroclastics which predominate in all but the southernmost par of the area, are much decomposed, and in color usuall green, but sometimes red. Upper part probably younger than Ellensburg formation.
	MIOCEN	Yakima basalt.	Ту		1500±	Black lava, weathering gray or brown, compact or scor aceous, with columnar partings common. Tuffs present, but not important.
>		Taneum andesite.	Tta		0-1000	Loose-textured lava, with tuff and tuff-breccia, pink green, gray, and brown in color.
M M		Manastash formation.	Tm	SEQUENCE PROVES	0-400	Massive, light-colored sandstone and pebbly conglor erate, with shale and seams of bone.
T E R T			(Tk)	SEQUENCE BROKEN		
	EOCENE	Teanaway basalt.  Kachess rhyolite.	Ttb Tk (Tn)		500	Lava with some tuff. Lava black, weathering dar brownish red, generally showing lamellar parting. Tuff, olive green.  Rhyolite, mostly lava, with little tuff. Lava is generally cream-white to pink, thinly laminated, lithoida showing small phenocrysts of feldspar. Spheruliti phases not uncommon. Pitchstone and obsidian rare A little andesite occurs locally.
		Naches formation.	(Tk)			Gray sandstone and olive shale, with contemporaneous flows of basalt and a little basalt tuff. The basa increases in importance toward the top of the formation and is lithologically similar to the Teanawa basalt.
PRE-	4 I IAKY	Granodiorite, peridotite, slate, and other rocks.				Descriptions in table of intrusive and pre-Tertiary rocks

GENERALIZED TABLE OF THE INTRUSIVE AND PRE-TERTIARY ROCKS OF SNOQUALMIE QUADRANGLE, ARRANGED ACCORDING TO AGE.						
AGE.	FORMATION NAME.	Symbol.	Lithologic Symbol.	CHARACTER OF ROCKS.		
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MIOCENE OR LATER	Snoqualmie granodio- rite.			Light-gray massive granular rocks of granitic character. phyritic near contacts and in smaller masses. Mostly gr diorite, but passing locally into more basic phases of relati slight importance, and including a considerable mass of siliceous biotite-granite.		
MIOCENE	Pyroxene-diorite.	Tpd		Gray holocrystalline rocks in stock-like masses projecting u through Keechelus volcanics. Mostly porphyritic, but center of larger areas are granular. Represent volcanoes from whice Keechelus andesites were extruded.		
Σ	Diabase.	Td		Brown, medium-grained diabase in intrusive bodies, with associated dikes, occupying vents from which Yakima basalt waderived.		
	Basic dikes and sheets.	Tbd		Diabase filling conduits leading up to Teanaway basalt.		
	Mount Stuart grano- diorite.	ms		Massive, gray, granular rock of granitic appearance, varying i grain and in proportion of darker minerals. Porphyritic neacontacts and in smaller masses.		
EOCENE	Peridotite.	pr		Massive and schistose, according to degree of alteration to se pentine. Colors range from black to nearly white, with yellov red, and green common. Massive peridotite, compact, wit waxy luster, and somewhat porphyritic.		
PRE-EOCE	Quartz-diorite.	qd		Light-gray granular rocks with rather large and conspicuous crystals of hornblende, showing a fairly distinct gneissic banding due to pressure and shearing. Marginal portions porphritic and generally more basic.		
OLDER	Peshastin formation.	ps		Black slate, with bands of chert, thin beds of grit, and lenses limestone.		
AND OL	Hawkins formation.	hk		Breccia, tuff, and amygdaloid, of purplish or greenish cold usually of diabasic composition, although much altered. some areas intricately associated with Peshastin formation.		
CARBONIFEROUS?	Easton schist.	et		Quartz-mica-schist, silvery green, crumpled, and gashed wi quartz veins. Amphibolites and epidote-schists less pron nent. Some bluish carbonaceous schists in northern part quadrangle.		